Technics

Turntable System

1981

SL-B202

Operating instructions

English ..... 3 ~ 7
Deutsch ..... 8 ~ 13
Français ..... 14 ~ 19
Nederlands ..... 20 ~ 24
Español ..... 25 ~ 30
Italiano ..... 31 ~ 35

This apparatus meets with decision 76/889 EEG
This apparatus was produced to "BS800: 1977"

Before operating this product, please read these instructions completely.

Thank you for choosing the SL-B202.
For optimum performance and safety, please read these instructions carefully.

Keep page 2 folded out while reading the instructions.

Caution for safe use of this apparatus (For UNITED KINGDOM)

Caution

- This apparatus is double insulated, safety earth not required.

Important

- **The wires in this mains lead are coloured in accordance with the following code:**

Blue:	**Neutral**
Brown:	**Live**

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.
The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured **BLACK**. The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured **RED**.

This equipment should be disconnected from the mains when not in use.

Before use

Caution:

Do not plug in the AC power plug before completing assembly. Attach the dust cover last to make assembly and adjustments easier.

These instructions apply to units of different color.

■ Checklist of parts

Turntable unit 1
Turntable platter 1
Turntable mat 1
Dust cover 1
45-rpm adaptor 1
Counterweight 1
Headshell/cartridge 1

Assembly

■ Installing the turntable platter

1. Place the platter on the center spindle.
2. Holding the belt by the ribbon, fit the belt over the capstan. Then remove the ribbon. **(Fig. 1)**
3. Place the turntable mat on the platter.

Note:
After placing the mat on the platter, turn the platter clockwise about ten full rotations by hand.
This is necessary to assure correct operation of the automatic mechanism.

■ Attaching the headshell (Fig. 2)

Insert the headshell plug into the end of the tonearm and turn the locking sleeve clockwise (viewed from the rear) while holding the headshell horizontal.

■ Attaching the counterweight (Fig. 3)

Fit the weight onto the rear end of the tonearm.

■ Balancing the tonearm and adjusting stylus pressure (tracking force)

1. If your cartridge has a detachable stylus protector, remove it. Be careful not to touch the stylus tip.
2. Release the arm clamp and lift the tonearm away from the arm rest.
3. Turn the counterweight clockwise or counterclockwise until the tonearm is balanced horizontally so it floats freely. **(Figs. 4 and 5)**

Note:
(A): Weight advanced too much. Move backward.
(B): Weight not advanced enough. Move further.
(C): Properly balanced.

While balancing the tonearm, be careful not to let the stylus contact the turntable mat or base.

4. After balancing the tonearm, clamp the tonearm into the arm rest.
5. While holding the counterweight stationary, rotate the weight ring so that the **"0"** on the ring scale is lined up with the center line on the tonearm shaft. **(Fig. 6)**
   This completes tonearm balancing (horizontal zero balance).
6. Turn the counterweight in the direction of the arrow so that the weight ring shows the correct stylus pressure number lined up with the center line. **(Fig. 7)**
   (Follow the cartridge manufacturer's recommendation.)
   When the counterweight is turned, the weight ring moves with it. Stylus pressure is indicated by the number on the scale aligned with the center line.

Note:
Set the stylus pressure to the maximum recommended value for your cartridge in cases where the record has an extremely high recording level, or where the unit is operated in a room at low temperature, or in places in which the unit is subjected to vibrations.

■ Adjusting the anti-skating control (Fig. 8)

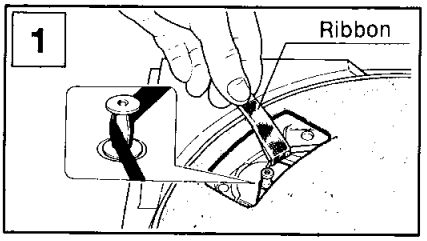
Set the anti-skating control to the same value as the stylus pressure.

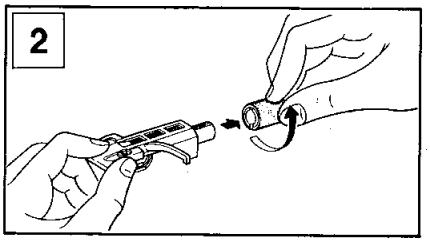
Note:
When a cartridge with integral dust brush is used, follow the cartridge manufacturer's recommendation for adjusting both stylus pressure and anti-skating control.

■ Attaching the dust cover (Fig. 9)

Hold both sides of the cover and lower it into the hinge slots. To remove the cover, open it and pull upward.

Note:
Opening or closing the cover during play may cause vibrations and groove skipping.
If you must open the cover during play, do so very gently.


1
Ribbon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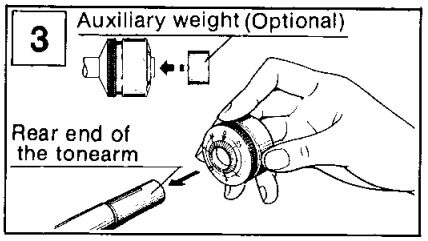
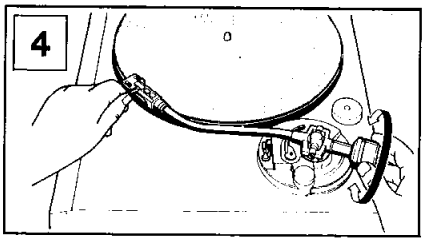

3
Auxiliary weight (Optional)
Rear end of the tonearm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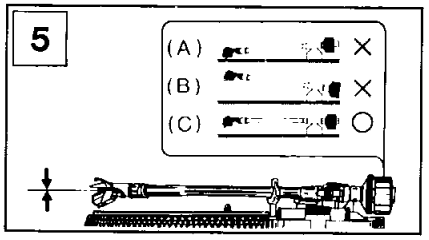
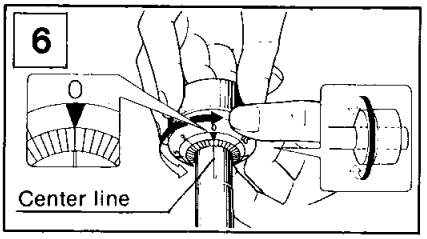
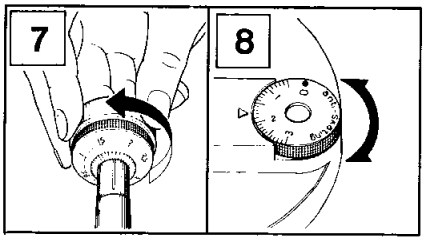
0


5
(A)
(B)
(C)


6
0
Center line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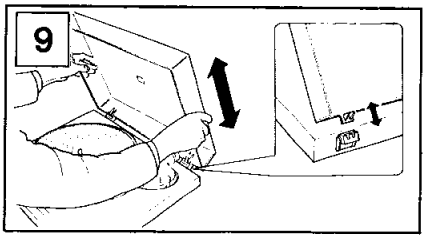
8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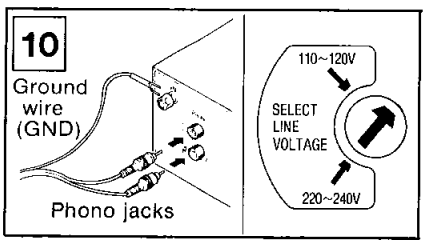
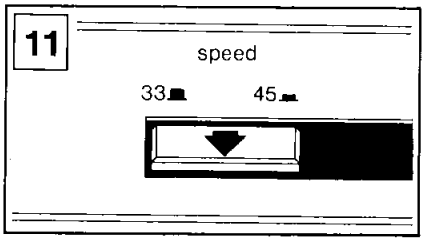
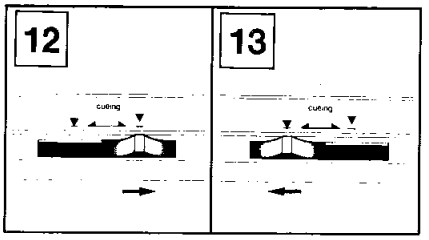
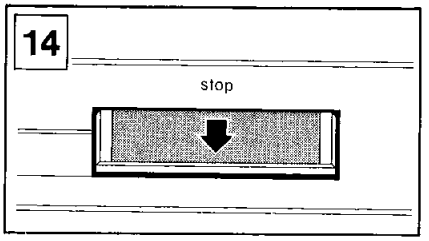
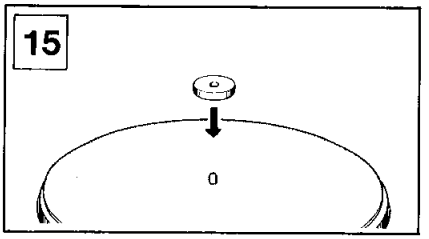
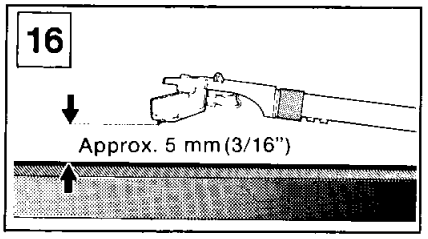

10
Ground wire (GND)
Phono jacks
110~120V
SELECT LINE VOLTAGE
220~240V

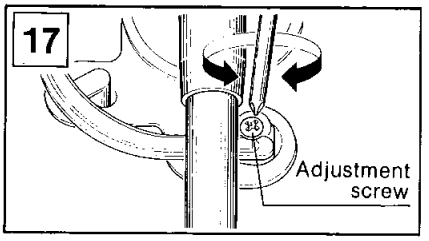

11
speed
33
45

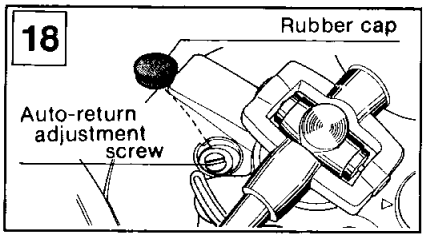

12
13
cueing
cueing

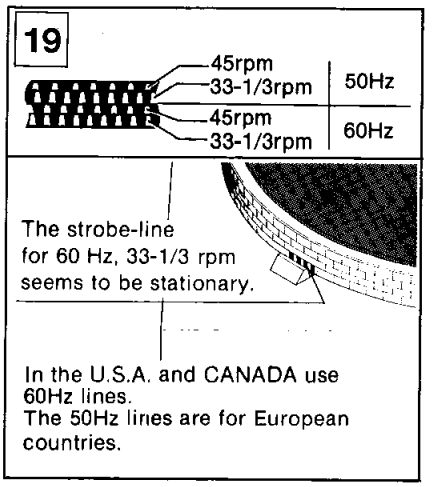

14
stop

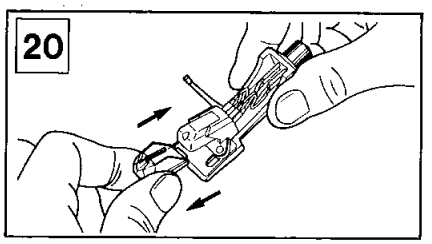

15
0


16
Approx. 5 mm (3/16")


17
Adjustment screw


18
Rubber cap
Auto-return adjustment screw


19
45rpm
33-1/3rpm
50Hz
45rpm
33-1/3rpm
60Hz
The strobe-line for 60 Hz, 33-1/3 rpm seems to be stationary.
In the U.S.A. and CANADA use 60Hz lines.
The 50Hz lines are for European countries.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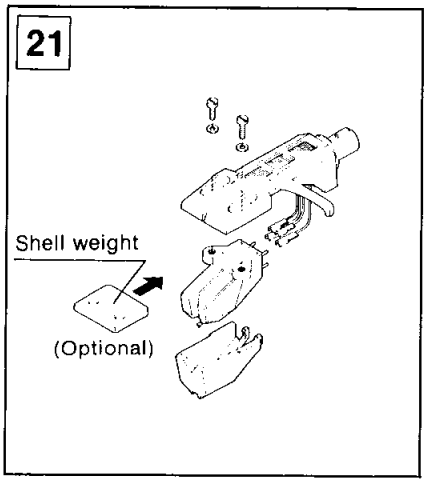
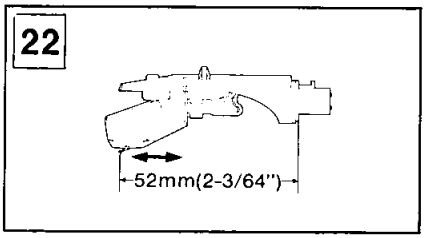
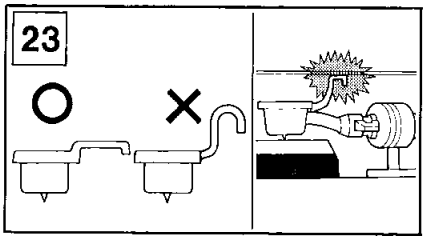

21
Shell weight
(Optional)


22
52mm(2-3/64")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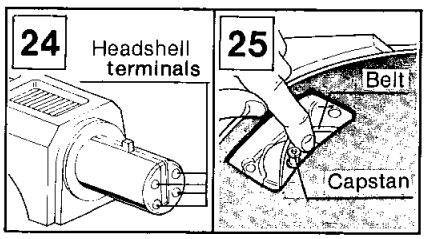
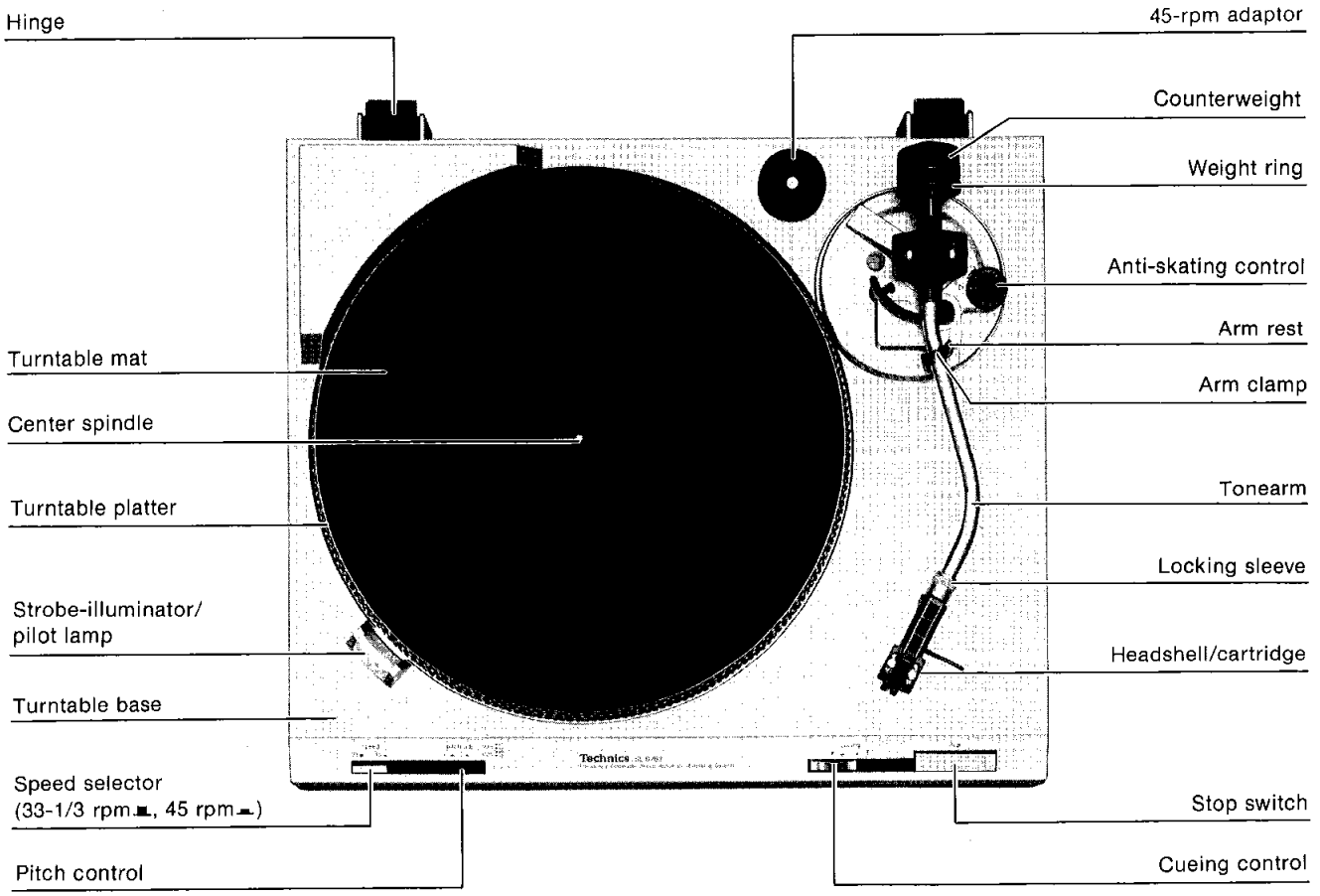

24
Headshell terminals
25
Belt
Capstan

Parts identification



Supplied headshell in combination with other parts.	Allowable cartridge weight. (Included the cartridge mounting screws)
A) Headshell only (8 g)	5 g – 7.5 g
B) + (Optional) Shell weight (2 g) (SFCZB30505)	3.5 g – 5 g
C) + (Optional) + (Optional) Auxiliary weight (SFPWG17202)	7.5 g – 8.5 g
D) + (Optional)	8.5 g – 10.5 g

■ To purchase any of the optional accessories indicated in this book, please contact your nearest audio dealer.

"Warning: To prevent fire or shock hazard, do not expose this appliance to rain or moisture."

Placement

- **Place the unit in a stable and horizontal position where there is little or no vibration.**
- **Place the unit away from the speakers so that it will be subject to as little direct sound radiation as possible.**
- **Do not place the unit where it will be exposed to direct sunlight, dust, moisture or heat.**
- **Place it in a well ventilated location.**

Connections

■ Connect the output jacks. (Fig. 10)

Output jacks	Amplifier or receiver
L (White) ——→	L Channel
R (Red) ——→	R Channel
GND (Spade lug) ——→	GND

Note:
To avoid hum, be sure to make a secure ground connection between turntable and amplifier or receiver.

■ Plug in the AC power plug.

Plug the AC power plug into an AC wall socket.

Caution:
Never plug into a DC socket.
Make sure the turntable's AC line-voltage selector is matched to your local voltage before plugging in the AC power plug.
If the pre-selected voltage is different from your local voltage, turn the AC line-voltage selector with a screwdriver so that it corresponds to your local voltage.
The AC line-voltage selector is under the platter. **(Fig.10)**

Operation

1. Put a record on the turntable mat.
2. If the cartridge has a detachable stylus protector, remove it.
3. Release the arm clamp.
4. Push the speed selector to the correct speed. **(Fig. 11)**
5. Set the cueing control to the "▼" position. **(Fig. 12)**
6. Move the tonearm over the record. The strobe-illuminator/pilot lamp will light up and the platter will rotate.
7. Set the cueing control to the "▼" position. **(Fig. 13)**
   The tonearm will descend and play will begin.
   At the end of the record, the tonearm will automatically return to the arm rest and the turntable will stop.
8. Securing the tonearm helps avoid damage to the stylus tip.
   The stylus protector should be attached for the same reason.

■ Stopping the turntable

Push the stop switch. **(Fig. 14)**
The tonearm will return to the arm rest and the turntable will stop.

■ Temporarily interrupting play

Set the cueing control to the "▼" position.
This will make the tonearm rise off the record.

■ Playing 45-rpm records having large center holes

Put the 45-rpm adaptor over the center spindle. **(Fig. 15)**
Push the speed selector for 45 rpm (▬).

Adjustments

■ Arm-lift height adjustment

The arm-lift height (distance between the stylus tip and the record surface when the cueing control is at the "▼" position) has been adjusted at the factory to approximately 5 mm (3/16"). **(Fig. 16)**

If the clearance is too narrow or too wide (because of different cartridge dimensions, for example), turn the adjustment screw clockwise or counterclockwise. **(Fig. 17)**

Clockwise rotation

—distance between the record and stylus tip is decreased.

Counterclockwise rotation

—distance between the record and stylus tip is increased.

■ Adjustment of automatic return position (Fig. 18)

(Remove the rubber cap.)

1. Put the stylus protector on the cartridge.
2. Remove the tonearm toward the center of the record. Then, the auto-return adjustment screw will appear.

If the tonearm tends to return to the arm rest before play has finished,

—turn counterclockwise.

If the tonearm fails to return after the final groove,

—turn clockwise.

■ Speed adjustment (pitch control) (Fig. 19)

There are strobe-lines cut on this turntable platter to indicate correct rotational speed.

If the strobe-line appears to be moving as the turntable rotates, adjust while playing a record.

1. Push the speed selector of the speed to be adjusted.
2. Watch the dot pattern on the side of the platter. Turn the pitch control one way or the other until the dots appear to stand still. This is the correct speed.
3. Turning the pitch control in the "+" direction increases the speed.
4. Turning the pitch control in the "−" direction decreases the speed.

Note:

Strobe dot pattern

This unit's strobe illuminator operates at the AC line frequency which generally has a 0.2% fluctuation.

This fluctuation, when present, may make the strobe pattern appear to change. However, actual turntable speed does not change, because the DC motor is not affected by AC power line frequency.

Stylus replacement and cartridge installation

■ Stylus replacement (Fig. 20)

The replacement stylus for this cartridge is EPS-25CS.

Replace the stylus at the first sign of wear or after about 1000 hours of use. Correct stylus pressure (tracking force) and proper record and stylus care will help extend stylus life. Stylus life varies with the conditions of use.

Noise or scratchiness may indicate a worn or damaged stylus.

To avoid damaging records, do not use a stylus that seems worn. Replace it immediately.

1. Loosen the tonearm locking sleeve to remove the headshell and cartridge.
2. Hold the headshell with the cartridge facing up. With your other hand, grasp the stylus assembly and pull out and up at a slant.
3. Line up the new stylus assembly with the cartridge and push in firmly as far as it will go.

■ Cartridge installation (Fig. 21)

When installing a cartridge, follow the instructions that came with the cartridge.

1. Connect the lead wires to the cartridge terminals.
   The terminals of most cartridges are color coded. Connect each lead wire to the terminal of the same color.
   White (L+) ..... **Left channel** +
   Blue (L−) ..... **Left channel** −
   Red (R+) ..... **Right channel** +
   Green (R−) ..... **Right channel** −
2. Mount the cartridge in the headshell using the screws provided with the cartridge.

■ About cartridge weight: (Refer to page 1)

Cartridges weighing between 3.5 and 7.5 g can be used on this tonearm.

If you purchase the optional auxiliary weight (Part number: SFPWG17202), or shell weight (Part number: SFCZB30505), cartridges weighing up to 10.5 g can be used.

Note:

Attach the shell weight between the headshell and the cartridge.

Attach the auxiliary weight to the rear end of the tonearm.

When attached, the auxiliary weight bumps against the dust cover, so remove the cover during play.

■ Overhang adjustment (Fig. 22)

15 mm is the correct overhang for this tonearm.

Loosen the screws and move the cartridge forward or backward until the distance between the stylus tip and the plug becomes 52 mm (2-3/64").

Tighten the screws without moving the cartridge.

Adjust the horizontal zero balance, stylus pressure and arm-lift height whenever you change the cartridge.

Notes and maintenance

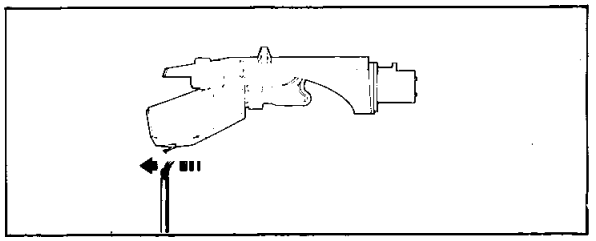
■ **Do not touch or hold the tonearm during automatic operation.**

■ **Avoid pressing on the platter while it is rotating.**
Do not try to hold it stationary.

■ **Be careful when using differently shaped headshells. (Fig. 23)**
With some headshells, the finger grip may strike the dust cover during automatic operation. Should this occur, leave the cover open during play.

■ **Before detaching or attaching a headshell, be sure to turn off the power on the amplifier or receiver.**
Speakers may be damaged if a headshell is attached or detached when the volume is turned up.

■ **Carefully remove dust and dirt from records and stylus.**
Dust and dirt degrade sound quality and cause excessive wear of the stylus and grooves.



■ **Wipe the headshell terminals from time to time. (Fig. 24)**
Dirty terminals can cause noisy reproduction. If severe, there may be no sound at all. Use a soft dry cloth to clean the headshell terminals.

■ **Wipe the dust cover and turntable base with a soft, dry cloth.**
Never use volatile cleaners such as alcohol, benzine or thinner.
Do not use chemically treated dust cloths. Do not expose the cover to insecticide spray.
To remove stubborn spots, first pull out the AC plug and detach the cover.
Then wipe the cover with a soft cloth slightly moistened with a mild soap and water solution.
Do not wipe the cover during play, or the tonearm may be attracted toward the cover due to the generation of static electricity.

■ **Transporting and shipping the turntable**
Pack the unit in the reverse order from unpacking. Use the original packing material if possible. Otherwise, take these steps:
- Remove the platter and mat and wrap them.
- Tape or tie the tonearm to the arm rest so it cannot shake free.
- Remove the counterweight and wrap it carefully. Remove the headshell with cartridge and wrap it carefully.
- Wrap the turntable base with a blanket or soft paper to avoid scratches or damage.

■ **How to remove and install the turntable platter (Fig. 25)**
The belt is connected to the capstan and the inner drive rim of the platter.
Before removing the platter, release the belt from the capstan.
When reinstalling the platter, lower it over the turntable shaft and then put the belt onto the capstan.

Note:
Be careful not to let oil or grease contact the belt.
If grease inadvertently contact the belt, disconnect the AC power plug first and wipe the belt clean with alcohol.

Suggestions for safety

Before using this unit, be sure to read applicable items of the operating instructions and these safety suggestions carefully; and afterwards keep them handy for future reference. Take special care to follow the warnings indicated on the unit itself as well as in the operating instructions.

1. **Avoid places where there is water or humidity.**
Do not use this unit near a bathtub, washbasin, swimming pool, or the like. Damp basements should also be avoided.
2. **Do not allow water or any foreign object to get inside this unit.**
Do not place small metal objects or anything containing liquid on or near the unit.
3. **Avoid placement of the unit where it will be exposed to the direct rays of the sun, or where ventilation is inadequate.**
Do not place this unit in a bookcase or between cabinets, unless proper ventilation is provided, or where curtains or furniture may obstruct the ventilation holes.
4. **Place this unit away from heat-emitting appliances.**
Never place this unit on or near a radiator, heat register, stove, or any other heat-emitting equipment (including amplifiers).
5. **Placement**
Place the unit on a stable, vibration-free, level shelf or stand.
6. **Use of a cart or stand.**
When deciding on a cart or stand, be sure to use only with the cart or stand recommended by the manufacturer.
7. **Wall or ceiling installation.**
If the unit is to be mounted on a wall or ceiling, be sure to do so only as recommended by the manufacturer.
8. **Check the voltage rating of this unit before connecting the unit to a power source.**
Be sure to connect the unit only to the type of power source indicated in the operating instructions, or as indicated on the unit itself.
9. **Care of the power cord and plug.**
Take care that the cord is not bent sharply (especially near its connection to the unit or near the plug), that nothing is placed on it, and that it is not pinched, crushed or frayed. Never take hold of the plug or cord if your hand is wet, and always be sure to grasp the plug body when connecting or disconnecting it.
10. **If the unit will not be used for an extended period of time:**
Be sure to disconnect the power cord from the wall outlet.
11. **Maintenance**
Refer to the operating instructions for details.
12. **Never attempt repairs yourself:**
(a) If the power cord or plug is damaged.
(b) If a foreign object or liquid falls into the unit.
(c) If the unit is exposed to rain.
(d) If the unit does not function normally, or if operation shows a distinct change in performance.
(e) If the unit has been dropped and the cabinet or chassis are damaged...etc.
Unplug the power cord and have it checked by a qualified technician (or the dealer from whom the unit was purchased or the nearest servicenter).
13. **Repairs**
Except for adjustments explained in the operating instructions, do not attempt any repairs yourself. Be sure to request service from a qualified technician (or your dealer or nearest servicenter).

Specifications

■ General

Power supply:	~110-120/220-240 V, 50 or 60 Hz
Power consumption:	3 W
Dimensions:	43 × 10.6 × 37.5 cm
(W×H×D)	(16-15/16" × 4-7/32" × 14-3/4")
	[Maximum height when top (dust cover) is open. 43 × 37 × 42 cm (16-15/16" × 14-9/16" × 16-17/32")]
Weight:	4.2 kg (9.3 lb.)

■ Turntable section

Type:	Automatic turntable Auto return Auto stop
Drive method:	Belt drive
Motor:	DC motor
Drive control method:	F·G servo control
Turntable platter:	Aluminum die-cast Diameter 30.4 cm (12 inches)
Turntable speeds:	33-1/3 rpm and 45 rpm
Pitch control:	6% adjustment range
Wow and flutter:	0.045% WRMS (JIS C5521) ±0.06% peak (IEC 98A Weighted)
Rumble:	−70 dB (IEC 98A Weighted)

■ Tonearm section

Type:	Universal tonearm "S" shaped tubular arm Static balanced type
Effective length:	230 mm (9-1/16")
Overhang	15 mm (19/32")
Tracking error angle:	Within 2°32' at the outer groove of 30 cm (12") record Within 0°32' at the inner groove of 30 cm (12") record
Offset angle:	22°
Stylus pressure adjustment range:	0—2.5 g
Applicable cartridge weight range:	(See page 1)
Headshell weight:	8 g

■ Cartridge section

Type:	Moving magnet
Frequency response:	10 Hz to 35 kHz 20 Hz to 10 kHz ±1 dB
Output voltage:	2.5 mV at 1 kHz 5 cm/s. zero to peak lateral velocity (7 mV at 1 kHz 10 cm/s. zero to peak 45° velocity [DIN 45 500])
Channel separation:	22 dB at 1 kHz
Channel balance:	Within 1.8 dB at 1 kHz
Compliance (dynamic):	10×10^{-6} cm/dyne at 100 Hz
Stylus pressure:	1.75 ±0.25 g (17.5 ±2.5mN)
Load impedance:	47 kΩ to 100 kΩ
Weight:	5 g (cartridge only)
Replacement stylus:	EPS-25CS Equivalent replacement stylus: EPS-25ES

Specifications subject to change without notice.
Weight and dimensions shown are approximate.